

Conjunctival melanoma

# Conjunctival melanoma

Carol L Shields

## Clinical and histopathological prognostic parameters

Conjunctival melanoma represents only 1.6% of all non-cutaneous melanomas.<sup>1</sup> Its rarity is emphasised in the Swedish report where the National Cancer Registry filed 1243 cases of cutaneous melanoma in a population of 8.4 million people during 1 year in comparison with only two cases of conjunctival melanoma.<sup>2</sup> Thus, data regarding this condition are scanty and primarily gathered at major eye cancer centres over long periods of time.

In this issue of the *BJO* (p 163), Anastassiou and coworkers analyse their 28 year experience with 69 patients with conjunctival melanoma managed at two eye clinics in Germany. Their findings support previous reports that nearly 50% of patients experience recurrent conjunctival melanoma. Factors most predictive of recurrence included amelanotic colour or mixed pigmentation, deep tumour invasion, and incomplete surgical excision. These data corroborate our previous published findings that tumour extension to the resection margin predicts future recurrence.<sup>3</sup> This fact is important for the surgeon to realise at the time of initial examination, at surgery, and on follow up. Proper excision of conjunctival tumours begins not in the operating room, but in the office at the initial assessment with slit lamp biomicroscopy. We have found that the best clinical judgment of tumour margin is obtained on slit lamp examination; thus, before surgical plans are designed, detailed large conjunctival drawings are performed in our office on all new patients with conjunctival tumours. In addition, planned surgical steps are listed in the chart. This information is later invaluable in the operating room when making a judgment on tumour extent, especially with amelanotic tumours. The detailed drawing and surgical plans are displayed in the operating room at the time of surgery. An attempt is made to obtain at least 3–4 mm of

tumour free margins and heavy cryotherapy is applied to the free margins after resection. If it is later realised that there is histopathological evidence of tumour to the resection margin, then wider excision should be considered to minimise recurrence.

### Conjunctival melanoma is potentially lethal

However, it is possible that other intangible factors also affect tumour recurrence, such as the surgeon's experience and tumour manipulation at surgery (we prefer "no touch" technique with no direct forceps manipulation of the tumour). Hence, it would probably be better for the patient to have a rare tumour managed at a centre where there are surgeons who have had experience with this disease. With other cancers, management at specialised centres has been found to be statistically beneficial to reduce recurrence and improve patient life prognosis.<sup>4,5</sup>

Anastassiou and associates reported 32% tumour related mortality at 5 years. Thus, we must understand that conjunctival melanoma is potentially lethal. The authors found that mortality was related to nodular or mixed growth pattern, deep tumour invasion into the substantia propria, tumour location in unfavourable sites such as the caruncle and palpebral, plical, and forniceal conjunctiva, and incomplete tumour excision. The authors admit that 46 of the 69 tumours were incompletely excised and had tumour to the margin of resection. They explain that this is related to the large size of tumour at the time of referral to their tertiary centres and also the numerous surgeons involved in the patient care. Alleviation of this problem in the future might be achieved if the patient is referred to the specialised centre at the time the initial diagnosis is

suspected so that exact margins can be ascertained and controlled initial resection performed by a team specialised in ocular oncology. In our analysis of 150 consecutive patients referred with conjunctival melanoma to our tertiary centre, it was apparent that surgical technique was important in the univariate analysis of tumour recurrence and metastasis.<sup>3</sup> For example, incisional biopsy was a risk for tumour recurrence. Therefore, we strongly advise referring physicians to avoid incisional biopsy of conjunctival melanoma. It is preferable that the diagnosis be made on examination and excisional biopsy results. Additionally, we found that excisional biopsy alone without supplemental alcohol keratectomy or conjunctival cryotherapy posed a risk for metastasis. Perhaps the supplemental treatment controls the surrounding subclinical disease. The importance of the initial surgical technique is underscored by these findings. We believe that meticulous surgical planning using a "no touch" technique, supplemental alcohol corneal epitheliectomy, and conjunctival cryotherapy may be most beneficial to the patient.<sup>6,7</sup>

*Br J Ophthalmol* 2002;**86**:127

#### Author's affiliation

C L Shields, Ocular Oncology Service, Wills Eye Hospital, 900 Walnut Street, Thomas Jefferson University, Philadelphia, PA, USA

#### REFERENCES

- 1 Scott J, Fraumeni JF, Lee JA. Melanomas of the eye and other noncutaneous sites: epidemiologic aspects. *J Natl Cancer Inst* 1976;**56**:489–91.
- 2 Seregard S, Koch E. Conjunctival malignant melanoma in Sweden 1969–91. *Acta Ophthalmol* 1992;**70**:289–96.
- 3 Shields CL, Shields JA, Gunduz K, et al. Conjunctival melanoma: risk factors for recurrence, exenteration, metastasis and death in 150 consecutive patients. *Arch Ophthalmol* 2000;**118**:1497–507.
- 4 Gollidge J, Wiggins JE, Callam MJ. Effect of surgical subspecialization on breast cancer outcome. *Br J Surg* 2000;**87**:1420–5.
- 5 Gillis CR, Hole DJ. Survival outcome of care by specialist surgeons in breast cancer: a study of 3786 patients in the west of Scotland. *BMJ* 1996;**312**:145–8.
- 6 Shields JA, Shields CL, De Potter P. Surgical approach to conjunctival tumors. The 1994 Lynn B McMahan Lecture. *Arch Ophthalmol* 1997;**115**:808–15.
- 7 Shields JA, Shields CL. Surgical management of conjunctival tumors. In: *Atlas of eyelid and conjunctival tumors*. Philadelphia: Lippincott Williams and Wilkins, 1999:331–4.



## Conjunctival melanoma

Carol L Shields

*Br J Ophthalmol* 2002 86: 127  
doi: 10.1136/bjo.86.2.127

---

Updated information and services can be found at:  
<http://bjo.bmj.com/content/86/2/127.1.full.html>

---

*These include:*

### References

This article cites 5 articles, 3 of which can be accessed free at:  
<http://bjo.bmj.com/content/86/2/127.1.full.html#ref-list-1>

Article cited in:  
<http://bjo.bmj.com/content/86/2/127.1.full.html#related-urls>

### Email alerting service

Receive free email alerts when new articles cite this article. Sign up in the box at the top right corner of the online article.

---

### Topic Collections

Articles on similar topics can be found in the following collections

[Eye \(globe\)](#) (538 articles)  
[Epidemiology](#) (756 articles)

---

### Notes

---

To request permissions go to:  
<http://group.bmj.com/group/rights-licensing/permissions>

To order reprints go to:  
<http://journals.bmj.com/cgi/reprintform>

To subscribe to BMJ go to:  
<http://group.bmj.com/subscribe/>